

REMARKS

Claims 1-28 were pending in this application prior to this Amendment and are still pending. Claims 29-104 were cancelled previously. Claims 1 and 12 are amended herein.

The examiner continues to reject claims 1, 2, and 13-18 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 5,562,091 to Foster et al. (Foster) in view of U.S. Pat. No. 5,715,548 to Weismiller et al. (Weismiller) and U.S. Pat. No. 6,080,120 to Sandman et al (Sandman). As amended herein, claim 1 recites a combination of elements and limitations including, among other things, “a patient-support apparatus having a module-receiving cavity provided within a first portion of the patient support apparatus, the patient-support apparatus having a base above which the first portion is located and relative to which the first portion is raiseable and lowerable, a compression sleeve adapted to couple to the patient’s limb, the sleeve being inflatable to compress the patient’s limb, a conduit through which the sleeve is inflated, a pneumatic coupler provided on a second portion of the patient-support apparatus that is spaced from the first portion of the patient support apparatus and that is accessible to a caregiver for selective and releasable connection of the compression sleeve to the pneumatic coupler, the conduit being routed through an interior region of the patient support apparatus between the module-receiving cavity and the pneumatic coupler, and a compression module removably attachable to the patient-support apparatus and operable to inflate the compression sleeve through the conduit and the pneumatic coupler, at least a portion of the compression module being received in the module-receiving cavity such that an outlet port of the compression module pneumatically communicates with the conduit when the compression module is received within the module receiving cavity of the patient-support apparatus, the compression module being removable from the module-receiving cavity to permit the compression sleeve to be coupled to the compression module to permit the patient to ambulate away from the patient-support apparatus while wearing the compression sleeve and carrying the compression module, the conduit being left behind with the patient-support apparatus while the patient ambulates away from the patient-support apparatus, the compression module being operable to inflate the compression sleeve worn by the patient while the patient is ambulatory.” Claim 1 has been amended herein in an earnest effort to advance the present application to allowance.

Nowhere does Foster, Weismiller, or Sandman, taken individually or together, disclose or suggest the combination of elements now recited in claim 1 as amended herein. First of all, claim 1 has been amended to specify that “the patient-support apparatus [has] a base above which the first portion is located and relative to which the first portion is raiseable and lowerable” which further clarifies the portion of the patient-support apparatus in which the module-receiving cavity is located. That is, claim 1 now requires that the module-receiving cavity is provided within a portion (i.e., “a first portion”) of the patient support apparatus that is above the base and that is raiseable and lowerable relative to the base. In contrast, Foster is aptly titled “Mobile Ventilator Capable of Nesting Within and Docking with a Hospital Bed Base” and, as the examiner admits in the first sentence explaining this rejection on page 2 of the April 30, 2009 Office Action, “Weismiller teaches, for example, a patient-support apparatus having a power and control module 112, 186 that fits into a module-receiving cavity within the base of the patient-support apparatus as shown in figures 11, 12 and 12a.” Accordingly, claim 1 clearly distinguishes over the teachings of Foster and Weismiller with regard to having a module-receiving cavity in a base of a hospital bed. Sandman is completely silent with regard to attaching the controller 10 to anything, let alone having it received in a module-receiving cavity provided within a raiseable and lowerable portion of a patient-support apparatus that is above a base of the patient-support apparatus.

Weismiller does teach additional treatment and surface control modules that interconnect with an on-board air handling unit 1046. The discussion of these modules spans from col. 82, line 14 through col. 89, line 49 of Weismiller. As the examiner notes, Weismiller is silent as to the location on the bed where the air handling unit is mounted. Weismiller also does not show precisely where on the bed the treatment and surface control modules connect. However, the examiner’s attention is directed to U.S. Pat. No. 6,047,424 to Osborne et al. (“Osborne”) which shows more detail about therapy modules like those of Weismiller and particularly, teaches an embodiment in which the modules removably attach to the head section of the bed. See Figs. 22 and 23 of Osborne. Osborne and Weismiller are both owned by Hill-Rom Services, Inc. who is also the assignee of the present application. Weismiller and Osborne are directed to features of Hill-Rom’s TOTALCARE® bed.

The basic premise of the bed design of Weismiller (and Osborne) is that the air handling unit of the bed is what provides the source of pressurized air to each of the various

modules that are selectively attached to the bed to customize the bed with various different patient treatments or therapies. Thus, Weismiller does not contemplate that any of the modules, including the sequential compression device air module 1522 shown diagrammatically in Fig. 61 of Weismiller and the sequential compression therapy device 1686 shown diagrammatically in Fig. 72 of Weismiller, includes its own source of pressurized air. This is made clear, for example, at col. 82, lines 30-35 in the sentences which states “[e]ach of the modules is designed to physically and functionally connect the various bladders and treatment devices to both the communication network of the hospital bed through surface instrument module 1024 and to the air handling unit 1046 which is controlled by air supply module 1014.” The examiner’s attention is also directed to the portion of the paragraph at col. 82, line 61 through col. 83, line 2 of Weismiller which is reproduced as follows:

Details of a therapy or support surface control module 1542 are illustrated in FIG. 62. It is understood that the details of foot section module 1514, prevention module 1516, treatment module 1518, pulmonary rotation module 1520, SCD air module 1522, pulmonary percussion/vibration module 1524, and air port module 1526 include the same or similar structural components as module 1542 illustrated in FIG. 62.

The module 1542 shown in Fig. 62 has no pressurized air source. Weismiller also makes the following statement at col. 87, lines 44-52 with regard to sequential compression therapy device 1686:

A sequential compression therapy device 1686 is also provided. Sequential compression device 1686 is coupled to its own control module 1688 which is configured to be connected to therapy header connector 1670. The present invention permits the sequential compression device to use an on board air handling unit 1046 and control system. This eliminates the requirement for a separate air pump and control panel which takes up valuable floor space near the bed and makes the bed difficult to move.

Based on the foregoing, it is clear that Weismiller teaches sequential compression therapy device modules that do not have a pressurized air source (i.e., a pump, compressor, etc.). Accordingly, none of Weismiller’s sequential compression device modules meet the claim 1 recitation that

“the compression module being operable to inflate the compression sleeve worn by the patient while the patient is ambulatory.” When Weismiller’s modules are detached from the bed, they are inoperable.

In rejecting claim 1, the examiner states the following when discussing the teachings of Weismiller:

Since the SCD controls exactly how the plurality of bladders are inflated in sequence, the module would have to be pneumatically coupled the compression module. This SCD 1512 would include a pneumatic coupler which would comprehend the claimed pneumatic coupler. **This coupler would be on a second portion of the patient-support apparatus** spaced from the first portion and the conduits between the compression module and the pneumatic coupler of the sequential compression devices **would be routed through the interior of the patient support.** (Emphasis added)

The bolded portions of the above passage are the examiner’s own conclusions and not based on what Weismiller actually teaches. In making these statements, it appears that the examiner has engaged in impermissible hindsight reconstruction based on the teaching of the present application and not based on the cited references. In looking at Weismiller’s Fig. 61 with its Sequential Compression Device block 1512, SCD Air Module Block 1522, and two lines therebetween, why would a pneumatic coupler spaced from the compression module have to be “on . . . the patient-support apparatus” as required by claim 1? Why wouldn’t the pneumatic coupler spaced from the compression module be on the compression sleeve in the manner shown in Sandman for example? Why would the conduits have to be routed through an interior of the patient support? Why wouldn’t such conduits be external from the patient support and run directly from the compression module to the compression sleeve as also shown in Sandman.

As amended herein, claim 1 recites, among other things, “the compression module being removable from the module-receiving cavity to permit the compression sleeve to be coupled to the compression module to permit the patient to ambulate away from the patient-support apparatus while wearing the compression sleeve and carrying the compression module, **the conduit being left behind with the patient-support apparatus while the patient ambulates away from the patient-support apparatus . . .**” (Emphasis added) This feature of

claim 1 is not taught in Weismiller at all. Nor can this feature be found in Foster or Sandman. There is no indication in Weismiller that when the disclosed therapy or treatment devices (e.g., the disclosed surfaces and SCD) and their companion control modules are removed from the hospital bed, there is a pneumatic conduit associated with the devices and modules which is left behind on the hospital bed. Such a left behind conduit would seem to add unnecessary cost to the overall system and so it would not be obvious to design a system in the manner recited in claim 1. Furthermore, after removal of Weismiller's therapy or treatment devices and the companion modules from the hospital bed, one cannot reconnect these away from the bed and have them operate because, as discussed above, Weismiller's modules don't have their own pressurized air sources. Admittedly, the ventilator system of Foster and the sequential compression system of Sandman are operable when situated away from a hospital bed, but neither Foster nor Sandman (nor Weismiller) teach that any sort of conduit once associated with these systems is left behind in an interior region of a patient-support apparatus.

For the foregoing reasons, claim 1 along with claims 2-28, which depend either directly or indirectly from claim 1, are in condition for allowance and such action is respectfully requested. Claim 12 is amended herein to remove a comma.

The examiner rejected dependent claims 3-12 and 19-28 under 35 U.S.C. § 103(a) as being unpatentable over Foster in view of Weismiller and Sandman and further in view of U.S. Pat. No. 5,611,096 to Bartlett et al. Because independent claim 1 is in condition for allowance as discussed above, this rejection of dependent claims 3-12 and 19-28 is rendered moot.

In the previous amendment, the undersigned stated that U.S. Pat. Nos. 6,047,424, which was listed along with another reference in an Information Disclosure Statement filed concurrently with the previous amendment, was a CIP of Weismiller. That statement was incorrect. The '424 patent is a CIP of U.S. Pat. No. 5,781,949 which is another Weismiller et al. patent pertaining to some of the same subject matter that is disclosed in the Weismiller patent cited by the examiner. The error in the statement regarding the parentage of the '424 by the undersigned is regretted.

An earnest attempt has been made to place the application in condition for allowance. However, if there are any questions or comments that would speed prosecution of this patent application, the Examiner is invited to call the undersigned at (317) 231-7341.

It is respectfully requested that, if necessary to effect a timely response, this paper be considered as a Petition for an Extension of Time sufficient to effect a timely response and that shortages in fees, if any, be charged, or any overpayment in fees credited, to the Account of Barnes & Thornburg, Deposit Account No. 10-0435 with reference to file 7175-78572.

Respectfully submitted,

BARNES & THORNBURG LLP

A handwritten signature in black ink, reading "Ronald S. Henderson". The signature is fluid and cursive, with the first name "Ronald" and last name "Henderson" clearly legible.

Ronald S. Henderson
Attorney Reg. No. 43669

Indianapolis, Indiana
317-231-7341